Shortwave Transmitter in Switzerland to Be Shut Down After Government Admits Health Effects

In 1990 the shortwave transmitter at Schwarzenburg, Canton of Berne, Switzerland, became the subject of an official epidemiological study commissioned by the Swiss government. The residents of the surrounding community had been complaining of ill health for the previous twenty years. These complaints were very similar to those being experienced now near all the new cellular phone transmitting antennas: insomnia, weakness, nervousness, joint and limb pain, disturbed concentration, heart palpitations, cough and sputum, shortness of breath, headache, dizziness, etc.

The leader of the study, Theodor Abelin, is a medical doctor and the Head of the Department of Social and Preventive Medicine at the University of Berne.

The 404 people who participated in the study underwent a health interview and personality tests, and kept health diaries during the summer of 1992 and 1993. Blood pressure and urine melatonin levels were also measured.

The results of this study, as Dr. Josef Mayr pointed out in the September/October 1996 issue of *Microwave News*, were sensational. Published in August 1995, the study showed that insomnia, nervousness and restless, limb and joint pain, general weakness and tiredness, cough and sputum, and abnormal (high or low) blood pressure were more frequent within 1.5 kilometers of the transmitter. Sleep interruption was found to be directly associated with the electromagnetic field strength of the transmitter, and sleep quality improved during a 3-day transmission shutdown, of which the study participants were not informed. The overall promotion rate of children from primary to secondary school during the 40 years of operation of the transmitter has been lower at a school near the transmitter than at one distant from it.

Health effects were found even at average exposure levels of 38 nanowatts per square centimeter, which is more than 5000 times lower than the international standard.

A followup study by the same team has now confirmed that sleep disturbances are strongly associated with exposure and distance from the transmitter, and that interference with sleep is occurring even where the average exposure levels are 2 nanowatts per square centimeter. This is 100,000 times lower than the international standard.

A third, pilot study on cows in the area showed that stopping the transmitter was associated with a rise in melatonin levels in saliva.

As a result of the Schwarzenburg research, the Working Group on Non-Ionizing Radiation for the FOEFL (Federal Office of Environment, Forests, and Landscape)—the very group which had previously recommended adopting the ICNIRP limits in Switzerland—changed its opinion and now regards these limits as not protective against chronic exposure. The FOEFL itself has recommended a nightly shutdown of the Schwarzenburg transmitter.

Swiss Telecom recently applied for renovation of the transmitter station, and permission has not been given by the Swiss authorities. Under pressure from Telecoms in other countries to avoid further bad publicity, Swiss Telecom plans to shut down the Schwarzenburg facility permanently at the end of March 1998. Operations will be moved abroad, probably to Asia.

The Schwarzenburg facility was put into operation in 1939, and its star-shaped main antenna was added in 1954. It broadcasts Swiss radio programs to Swiss listeners overseas, and the direction of broadcast changes every two hours. A maximum of three 6.1–21.8 MHz antennas are active simultaneously, each with a power of 150 kilowatts. The main beam is adjusted for an elevation of 11 degrees, so that people living at ground level are not directly exposed to the main beam.

This is a letter from the FOEFL to the SchoK (Schwarzenburg ohne Kurzwellensender, or Schwarzenburg without the shortwave transmitter), a local alliance of people opposed to the station:

Health Effects of the Schwarzenburg Shortwave Transmitter

(translated from the German)

Bern, 29 May 1996

Very honored Ladies and Gentlemen:

We make reference to our letter of December 15, 1995, in which we placed in view before you an opinion of the Working Group "Nonionizing Radiation", on the question of the limits on emissions in the shortwave range. The Working Group has meanwhile changed this opinion (see enclosure), and comes to the following conclusion:

The Working Group holds that a connection between the established sleep disturbances and the transmitting operation is proven, even though the measured field strength of the Schwarzenburg transmitter everywhere in the neighborhood lies below the 1990 recommended emissions limits (cf. Biological Effects of Nonionizing Electromagnetic Radiation on Man and his Environment; Part 1, Frequency Range 100 kHz to 300 GHz; Publication Series Environmental Protection No. 121, BUWAL, June 1990). They point out next, that it is questionable if these recommended emission limits guarantee the protection of man during chronic exposures, but it is clear that at the moment we are not yet in the situation, with scientific methods, to formulate lower emission standards which could with certainty prevent the observed sleep disturbances. If measures are going to be taken concerning the Schwarzenburg shortwave transmitter, then the Working Group considers a transmission halt during the night as a sensible method.

The BUWAL and the BAG (Federal Bureau of Health) agree with this judgement. Both Ministries have informed the appropriate authorities for the Schwarzenburg shortwave transmitter (Federal Commerce and Energy Dept. as well as the Bureau of Economics of Bern Kanton).

We hope, with this statement, to serve you, and remain,

With friendly greetings,

Federal Bureau for Environment,
Forests, and Landscapes
(BUWAL)
The Director
Ph. Roch

Enclosure: Opinion of the Working Group "Nonionizing Radiation"

Opinion of the Working Group "Nonionizing Radiation" on the Study "Health Effects of the Schwarzenburg Shortwave Transmitter"

(translated from the German)

Zurich, March 1996

The Working Group was asked by BUWAL to give an opinion on the outcome of the investigation of the Schwarzenburg shortwave transmitter.

It has thoroughly reviewed the reports, Kurzwellensenders Schwarzenburg" (BEW-Publication Series No. 56, Aug. 1995), and "Study on Health Effects of the Shortwave Transmitter Station of Schwarzenburg, Bern, Switzerland" (BEW-Publication Series No. 55, Aug. 1995), in two meetings. At the first meeting Professor Abelin, the leader of the study, was present as guest.

The Working Group judges the study under discussion and its results from a scientific point of view as follows:

1. The methodology of research and analysis is well chosen.

2. The emission standards of the Working Group, in agreement with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) (see: Biological Effects of Nonionizing Electromagnetic Radiation on Man and His Environment, Publication Series Environmental Protection No. 121, BUWAL 1990) were not exceeded in any measuring location or under any transmission conditions.

3. No substantial increase in physical illness, e.g. cancer or diabetes, was found. The Working Group thinks, to be sure, that the studied population is small. A possible increased risk of disease would have had to be massive, in order to have been able to prove it at all.

4. The personal interviews showed a substantial increase in sleep disturbances and other psychovegetative disorders in the neighborhood of the transmitter. More than 50% of the over-45 population in the highest exposed Zone A reported serious and frequent sleep disturbances. After the shutdown of the transmitter the quality of sleep improved. These findings were statistically significant.

The Working Group considers that a connection between the transmitter operation and subjectively perceived sleep disturbances is proven. It is a question of a remarkable finding, that nevertheless should be confirmed through further studies in other locations. How much the sleep disturbances are directly caused by the electromagnetic fields, and how much by other factors associated with the transmission operation which indirectly trigger the disturbances or make them stronger, the data do not allow one to determine. A direct effect of the electromagnetic fields cannot in any case be ruled out.

5. If the electromagnetic fields of the transmitter are causally responsible for the psychovegetative disturbances, there is at present no biological working model so far proved that could plausibly explain the mechanism of this non-thermal effect. In addition it is also not known, which physical parameters of the emissions (electric or magnetic fields; modulation; polarization; frequency or combination of frequencies) and which time aspect of exposure (peak value; average exposure, e.g. during the night or during the day) are of significance.

6. The Working Group has occupied itself intensively with the question, whether the present emission standards must be made lower, or if at any rate there should be a difference between acute and chronic exposure.

It is of the opinion, that the currently valid emission standards guarantee the protection of man in acute expo-

sure situations, now as before. When it recommended these exposure levels for Switzerland in 1990, it further held that by adhering to these limits, injurious and annoying effects were also unlikely from exposures of longer duration. The results of the study at hand have now shown that this, at least in the area of the Schwarzenburg shortwave transmitter, is questionable. On the other hand the results of a single study are not adequate to derive lower emissions limits for longer exposure times, for instance for average exposure during the night, during 24 hours, or during a year. The Working Group recalls in this connection the criteria which, in its earlier deliberations on scientific reports, it put in place as a basis for setting emission standards. It holds these valid, now as before:

- A finding should be independently reproduced.
- There should be a working model available that is able to explain the observations.
- The causality of the electromagnetic field should be proven.

None of the 3 criteria is fulfilled in the present case.

7. The Working Group repeats its earlier recommendation, in view of the indications and uncertainties about chronic effects of emissions even in the zone below the emissions limits: to reduce emissions as far as is technically and operationally possible and scientifically acceptable. This principle of a future-directed environmental protection receives additional force through the results of the present study.

If the appropriate authorities in the present case wish to require precautionary measures, then the Working Group is of the opinion that a transmission halt during the night is sensible, and that parallel to the reduced transmission operation a renewed evaluation of sleep quality should be done.

The chairman,

Professor H. Krueger

Legislation Introduced in the Congress of the United States

On October 30, 1997 Senators Patrick Leahy (D-VT) and James Jeffords (R-VT) introduced legislation to overturn the preemption clause of the Telecommunications Act of 1996, and to give back to states and local governments the right to regulate wireless technology on the basis of health effects. Senators Patty Murray (D-WA) are Russell Feingold (D-WI) are co-sponsors of this legislation, which is Senate bill S.1350.

One week later Representative Bernie Sanders (I-VT) introduced a similar bill in the House, H.R. 3016, co-sponsored by Christopher Shays (R-CT) and Peter DeFazio (D-OR). The House bill addresses health effects at greater length.

Statement of Senator Patrick Leahy, Oct. 30, 1997

Mr. President, I rise today to renew my strong objections to proposed Federal Communications Commission rules that essentially rob states and communities of the authority to decide where unsightly telecommunications towers should be built.

I am one of five Senators who voted against the Telecommunications Act of 1996. One of my fears was that the will and voice of states and local communities would be muzzled. Unfortunately, my fears have been confirmed.

Under the telecommunications reform bill, Vermont and towns in other states have little say, and when big, unsightly towers are proposed, towns can no longer just say no. It is unfortunate that the Telecommunications Act received 91 votes. The telecommunications bill also prohibits towns and cities from having stricter health and safety standards regarding the environmental effects of radio frequency emissions.

The State of Vermont—from Governor Howard Dean to the Vermont Environmental Board, local zoning officials, mayors and citizens—are all concerned that they are losing control over the siting, design and construction of telecommunications towers and related facilities.

They have all written to the FCC opposing this rule, and I want to make clear that I endorse their comments. They have done an excellent job representing the views of Vermonters and they make a strong case for giving state and local governments more control over these important land use issues.

They have also submitted a lengthy petition. I hope that letters and petitions will influence the FCC, but I am not confident.

These tower-siting rules should be stopped once and for all, and the way to ensure that is to tear them out by their roots which were planted in the 1996 telecommunications bill.

Today, joined by Senator Jeffords, I am introducing legislation that repeals the authority of the FCC to preempt state and local regulations affecting the placement of new telecommunications towers. I do not want Vermont turned into a giant pincushion with 200-foot towers indiscriminately sprouting on every mountain and in every valley.

The backbone of Vermont's beauty is its Green Mountains surrounded by magnificent views and valleys, rivers and streams. Vermonters do not want scenic vistas destroyed by giant towers bristling with all manner of antennas and bright lights.

When I step out my front door in Middlesex, I never cease to enjoy the magnificent view. I am sure all Vermonters feel the same way I do about the scenic wonders of our state. We want to move with care to avoid the indiscriminate placement of towers that would jeopardize one of our state's most precious assets.

Vermont citizens and communities should be able to participate in the important decisions affecting their families and their future. The location of large transmission towers can have significant effects on property values, health, enjoyment of one's home and the ability to sell one's home. The Telecommunications Act went too far toward preemption of local control and the proposed FCC implementation goes even farther.

Vermont enacted its landmark legislation, known as Act 250, to carefully establish procedures to balance the interests of development with the interests of the environment, health and safety, resource conservation and the protection of Vermont's natural beauty.

The FCC rule under consideration will interfere with the operation of Act 250 and take away local community and state control over development. Make no mistake—I am for progress, but not for ill-considered, so-called progress at the expense of Vermont families and homeowners.

I recognize that it is important that Vermont not be left out of technological advance, but that is the whole point of having an Act 250 process. Vermont communities and the state of Vermont must have a role in deciding where these towers are going to go and must be able to take into account the protection of Vermont's scenic beauty. In fact, by requiring the companies to work with Vermont towns, acceptable alternative locations could be suggested. This would be much better than allowing any company to just come in willy-nilly and plop down towers next to our backyards.

The Vermont Environment Board has carefully described the history of Act 250 and explained how well this law has worked in both promoting business opportunities in Vermont and in protecting the environment and Vermont's natural beauty. Vermont's Act 250 is designed to stand in the way of projects only when they are not in the best interests of Vermont's future.

Act 250's burden of proof to show compliance is properly on the applicant. The FCC rules reverse this policy and place the burden of proof on the community. This makes no sense. Developers have the data and resources to explain and justify their choice—it should not be up to the state or local community to prove the negative. My bill again affirms where the burden of proof should be: with the applicant, not the community.

I trust Vermonters to do what is right to protect the state's beautiful scenery. Vermont can protect its rural and natural beauty while still providing for the amazing opportunities offered by these technological advances.

To deprive states of the ability to protect their land from unsightly towers is wrong, and the FCC rules should not stand. My legislation would reaffirm that states have a role to play in where telecommunications towers are placed.

House Bill H.R. 306

A BILL to amend section 332 of the Communications Act of 1934 to preserve State and local authority to regulate the placement, construction, and modification of certain telecommunications facilities, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. FINDINGS AND PURPOSES.

(a) FINDINGS. – The Congress finds the following:

(1) States and localities should be able to exercise control over the construction and location of such towers through the use of zoning, planned growth, and other controls relating to the protection of the environment and public health.

(2) The placement of commercial telecommunications, radio, or television towers near homes can greatly reduce the value of such homes, destroy the view from such homes, and reduce substantially the desire to live in such homes.

(3) There are alternatives to the construction of additional telecommunications towers to effectively provide wireless services, including the collocation of transmitters on existing towers and the use of alternative technologies, including satellites.

(4) The Federal Communications Commission does not consider itself a health agency and turns to health and radiation experts outside the agency for guidance on the issue

of health effects due to radio frequency exposure. Additionally, both the Food and Drug Administration and the Environmental Protection Agency agree that the research completed to date is insufficient to determine whether using portable cellular telephones presents risks to human health. It is therefore in the interest of the Nation for the Congress to authorize a thorough Federal study into the health effects of low-level, prolonged exposure to nonionizing radiation.

(5) The rapid proliferation of personal wireless transmitters and the expected rollout of digital television transmitters mean that the number of sources of nonionizing radiation and the relative strength of these sources will increase dramatically in our Nation's communities in the near future. Until independently funded, conclusive, peer-reviewed studies are completed on this subject, we should exercise caution and give States and local governments full authority to protect the public from radio frequency emissions.

(6) The Federal Communications Commission has proposed rules regarding the siting of personal wireless transmitter towers. It is in the interest of the Nation that the second memorandum opinion and order notice of proposed rulemaking of the Commission with respect to application of such ordinances to the placement of such towers, WT Docket No. 97-192, ET Docket No. 93-62, and RM-8577, be modified in order to permit State and local governments to exercise their zoning and land use authorities, and their power to protect public health and safety, to regulate the placement of telecommunications towers. Further, the proposed rules should be modified to allow a licensee or applicant to seek relief from an adverse action only after they have exhausted all available administrative or judicial remedies at the local or State levels of jurisdiction, and, that when petitioning before the Commission for relief from an adverse decision, the applicant shall bear the burden of proof relating to the placement of such towers.

(7) On August 19, 1997, the Federal Communications Commission issued a proposed rule, MM Docket No. 97–182, which would preempt the application of State and local zoning and land use ordinances regarding the placement of telecommunications towers for digital television services. It is in the interest of the Nation that the Commission not adopt this rule.

b) PURPOSES. – The purposes of this Act are as follows:

(1) To repeal the limitations on the exercise of State and local authorities regarding the placement, construction, and modification of personal wireless service facilities that arise under section 322(c)(7) of the Communications Act of 1934 (47 U.S.C. 332(c)(7)).

(2) To permit State and local governments to regulate the placement, construction, and modification of such facilities on the basis of the environmental effects of the operation of such facilities.

(3) To prohibit the Federal Communications Commission from adopting rules which would preempt State and local regulation of the placement of such facilities.

SECTION 2. STATE AND LOCAL AUTHORITY OVER PLACEMENT CONSTRUCTION, AND MODIFICATION OF CERTAIN TELECOMMUNICATIONS FACILITIES.

(a) REPEAL OF LIMITATIONS. – Section 332(c)(7)(B) of the Communications Act of 1934 (47 U.S.C. 332(c)(7)(B)) is amended –

(1) in clause (i), by striking "thereof—" and all that follows through the end and inserting "thereof shall not unreasonably discriminate among providers of functionally equivalent services.";

(2) by striking clause (iv);

(3) by redesignating clause (v) as clause (iv); and

(4) in clause (iv), as so redesignated—

(A) in the first sentence, by striking "30 days after such action or failure to act" and inserting "30 days after exhaustion of any administrative remedies with respect to such action or failure to act"; and

(B) by striking the third sentence and inserting the following: "In any such action in which a person seeking to place, construct, or modify a tower facility is a party, such person shall bear the burden of proof".

(b) PROHIBITION OF ADOPTION OF RULE.— Notwithstanding any other provision of law, the Federal Communications Commission may not adopt as a final rule the proposed rule set forth in "Preemption of State and Local Zoning and Land Use Restrictions on Siting, Placement, and Construction of Broadcast Station Transmission Facilities", MM Docket No. 97–182, released August 19, 1997.

Legislation Proposed in Australia

by Sara Benson

The New South Wales Local Government Association, at its Annual Conference in October of this year, passed a Motion regarding the siting of telecommunications infrastructure. All delegates supported the Motion.

This Motion is not binding on member councils or the

carriers. About 16 councils around Australia have already formed independent policies on cellular phone towers, with specified distances from residences varying between 300 and 500 metres, and in once case 1 kilometre. None of these policies has been challenged as yet. Since deregulation in July there have been no new requests from carriers for new towers—all the ones going up now were negotiated previous to 1 July.

NSW Resolution

At the NSW Local Government Association 1997 Annual Conference (October 26-29) the Conference resolved to support the following motion supported by Wyong Shire Council:

(a) limit the location of mobile telephone base stations (and other commercial electromagnetic emitting facilities) to greater than 500 meters from residences, schools, child care centers, hospitals and nursing homes;

(b) require mobile telephone base stations (and other electromagnetic emitting facilities) to emissions of no more than .001 microwatts per square centimetre;

(c) require the owners of mobile telephone base stations to monitor emissions in accordance with this level and report to the appropriate council at least yearly on levels achieved;

(d) request the federal government to reverse the policy of exclusive digitalisation for Australia and thereby permit analogue to continue beyond 2000;

(e) the federal government be requested to immediately establish the Health Risk Review that had $4M allocated in the May 1997 budget;

(f) that the Local Government Association establish a Task Force to facilitate discussion and negotiations between councils and mobile phone companies to work towards establishing programs of progressive relocation on a priority basis of those mobile phone base stations which are already located within 500 metres from residences, schools, childcare centers, hospitals and nursing homes; and that the negotiations also seek to ensure that these facilities would be monitored annually for electromagnetic radiation and the results be reported to the local council.

NOTE FROM COUNCIL:

There is concern in the community that radiation from mobile telephone base stations is harmful to health.

Under changes to Federal control it seems that Local Government may now have the authority to place conditions on approvals for these installations and a common approach to the conditions across the State would enhance the changes of enforcing these conditions.

The role of the Association is to maintain, protect, promote and represent the interests of the member councils. The Conference sets policy statements and actions for the Association in the various policy areas.

Therefore, the conference motions are not binding upon the individual member councils but are actioned by the staff of the Association in terms of representing the interests of Local Government.

LAWSUITS FILED

U.S.

The Cellular Phone Taskforce filed a federal lawsuit against the Federal Communications Commission in the U.S. Court of Appeals for the Second Circuit in New York on November 10, 1997. We are petitioning the Court to review the FCC's Radiofrequency Safety Guidelines, released August 1, 1996 and finalized August 25, 1997, for the reasons listed below. Environmental attorney John E. Schulz in San Rafael, California is our legal counsel for this case.

Our petition states that the FCC's Order "establishes guidelines permitting levels of radiofrequency radiation that injure the electrosensitive members, the members who hear radiofrequency radiation, and other members of the Taskforce, thereby depriving them of their civil rights."

The specific issues we are raising are:

1. The Order violates Petitioner's members' Civil Rights guaranteed under the First, Fifth and Fourteenth Amendments.

2. The Order discriminates against Petitioner's members on the basis of handicap, in violation of the Rehabilitation Act of 1973, as amended by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978, generally and in 29 USC 794; and in violation of the Telecommunications Act of 1996, 47 USC 255.

3. The guidelines and compliance standards in the Order are unwarranted by the facts in the record and are grossly inadequate to protect the public from injury.

4. The Commission exceeded its statutory authority in preempting states and local governments in areas of health and environment in which it has no expertise.

5. OET Bulletin 65, Edition 97-01 and Supplement A (Edition 97-01) to OET Bulletin 65 (Edition 97-01) are rules which the Commission issued without due process.

6. The Order is authorized by statutes which are unconstitutional:

a. Congress improperly delegated to the Federal Communications Commission authority in health and environmental matters, in 47 USC 151, 253(b), 254(c)(1)(A), 332(a)(1), 332(c)(7)(B)(iv) and in Section 704(b) of the Telecommunications Act of 1996.

b. Congress improperly regulated intrastate commerce in 47 USC 253(a).

c. Congressional mandating of technology which is injurious to the public, in 47 USC 151, 157, 303, 309, 332, and 714, and in Sections 704, 706 and 708 of the Telecommunications Act of 1996, is unconstitutional.

7. The requirements of the National Environmental Policy Act of 1969, 42 USC 4321 et seq., were not met.

8. The Commission has unlawfully withheld and unreasonably delayed the adoption of lawful radiofrequency health and safety standards.

We are asking the Court for the following relief:

1. The Order be held unlawful and set aside.

2. The FCC's rules and guidelines for evaluating the environmental effects of radiofrequency emissions be remanded to the FCC for reformulation in accordance with law and the Constitution.

3. The Court instruct the FCC to impose an interim moratorium on new wireless facilities in the United States, effective immediately.

Petitions for Review have also been filed in the U.S. Court of Appeals for the Ninth District in San Francisco by the Ad-Hoc Association of Parties Concerned About the Federal Communications Commission Radiofrequency Health and Safety Rules, led by David Fichtenberg; and in the U.S. Court of Appeals for the District of Columbia by the Communications Workers of America.

England

Mohammed Al Fayed, the owner of Harrods, won permission from the Supreme Court of England and Wales, on Dec. 1, 1997, to challenge plans to erect a 70 foot cellular phone tower near his estate at Oxted, Surrey. He is challenging the tower on grounds of health risk to the community.

The proposed tower would have 6 antennas and 4 dishes on it. The London *Daily Telegraph* of December 2 reports:

"It is believed to be the first time that the granting of planning permission for the erection of a communications mast for mobile phones has been challenged through judicial review on grounds that the alleged health hazards have not been taken properly into account.

"Mr. Fayed's counsel, Anthony Croxted, QC, had told the judge that the health risk objections had not been properly put before members of the Tandridge district council before it granted Mercury Personal Communications planning permission last July to erect the tower at Oxted Quarry.

"Mr. Fayed claimed that the decision was 'unlawful, null and void and of no effect'.

"Although he granted leave to bring the judicial review application, the judge refused to make a court order banning erection of the mast before the full hearing of the case, expected in six to 12 month's time.

"Welcoming the judge's decision to grant leave for judicial review, Mr. Fayed's solicitor, Alan Meyer, said later that the case would provide an opportunity to air growing international concern about the possible risk to health by exposure to low-frequency radio waves from mobile phone masts. 'This issue doesn't really adversely affect Mr. Al Fayed personally but it does adversely affect all the people in the community where he lives,' Mr. Meyer said.

"Although a mobile phone user himself, Mr. Fayed, who lives at Barrow Green Court, Oxted, 'believes in helping his community', Mr. Meyer said.

" 'There is evidence that radio wave emissions can have such an effect even hundreds of metres away from the masts, and yet they are being built close to residential communities or schools, or on top of office blocks.' The council's decision to grant the mast planning permission was, he claimed, 'irrational' because the potential risk to human health from mobile phone technology had been acknowledged by the European Commission Expert Group and a World Health Organization report in 1996 by Prof. Michael Repacholi.

"More than 138 million mobile phones have been in use around the world for up to 10 years. So far no conclusive scientific evidence has emerged to link them to any health hazard. Although research has found cell phones could possibly heat up the user's brain, interfere with heart pacemakers or medical equipment in hospitals, and cause cancer in mice, no evidence has been found that the radiation from mobile phones, and in particular mobile phone masts, directly endangers human health.

"The World Health Organization has financed a £2million project to examine the effect of electromagnetic radiation from phone masts.

"However, Prof. Repacholi has admitted: 'To date, health research in the area has been largely ad hoc and totally uncoordinated at the international level.'

"Earlier this year he announced he had discovered a link

between electromagnetic radiation and an increase in tumours in mice. Critics pointed out that the radiation doses were extraordinarily high and administered continuously for several months.

"A spokesman for Mercury said: 'We'll have to wait and see what documents come from the court, but we suspect this line will probably be used by other opponents of mobile phone masts.'"

Ireland

Press Release, 6 Nov. 1997

Re: Proposed erection of Esat Digifone telecommunications mast on Garda Barracks in Easky, Co. Sligo

As of lunch time today, our legal advisers have been given leave by Mr. Justice McCracken of the High Court to serve short notice of an application for an interlocutory injunction which is to be heard in the High Court on Monday morning next, 10 November 1997.

The proceedings are being taken by three mothers on behalf of their children against Esat Digifone Ltd, The Minister for Public Enterprise and Employment, The Minister for Health and The Minister for the Environment.

The Plaintiffs are challenging the right of Esat Digifone Ltd to irradiate their children with microwave emissions from its proposed antennae which they intend to erect on a new mast located in the grounds of the Garda Station next door to the National School.

In addition they are seeking to challenge the basis of the present safety guidelines and will contend that they do not adequately safeguard public health.

The Plaintiffs are also seeking various declarations which may have serious implications for the ex-Minister for the Environment, Mr. Howlin who is presently contesting leadership of the Labour Party, who directed the planning authorities to only permit the siting of such masts beside schools as a last resort, and at the same time granted an exemption to Esat Digifone Ltd from those planning guidelines, allowing Esat to erect base stations at Garda Barracks even where the Barracks are beside schools.

The Plaintiffs contend that the "safety" guidelines relied upon by Esat Digifone and the State only take into account what is known as the thermal effects from such radiation, and fail to take into account athermal effects which are now widely accepted as having potential to cause serious adverse health problems including cancer promotion.

This community is not against masts per se. We are against a mast being erected in this village, next to our children. Children are hugely more susceptible to radiation than adults, and we fear for their well being.

We are not imaging our fears. There is very real evidence for alarm. Both Neil Cherry's report in February this year, and Repacholi's in May, and other research done by many other scientists proves this. The crux of the matter is that no one in the Government or the telecommunications industry is addressing the effects of non thermal radiation. The standard which Esat complies with at the moment only relates to thermal effects. If the microwaves don't heat or burn you, they say they are OK. This standard is no longer relevant. It is known that they won't heat or burn you. What no one has yet set is a standard for non thermal effects. It is now known that microwave radiation can affect body tissue without heating or burning it. There are endless problems associated with non-ionizing radiation—leukemia, loss of memory, learning difficulties, asthma, miscarriage, breast cancer, skin cancer, brain hemorrhage, sleep disruption, headaches, fatigue, and many more. Pacemakers and hearing aids can be affected.

We take issue with Esat's statement that this mast will only be emitting 3 watts. Scientifically these emissions are always measured in terms of equivalent power, and this mast will be emitting 2000 watts—a figure backed by Forbairt. Also the GSM signal is a pulsed signal—thought to be the most damaging kind, as it interferes with the body's own electromagnetic field, and this is how cell changes are thought to occur. To be safe we MUST aim for a public exposure limit of 10 nanowatts per square centimetre, and that to be cumulative from all sources.

The Government's own recommendations state that only as a LAST resort should masts be placed near schools or in villages or built up areas. This is a FIRST resort, not a last resort. The mast Esat wishes to place in Easkey should not be within at least a mile of any habitation.

Erecting masts in locations near to people, where they live, work, play or go to school amounts to a giant experiment on Irish people, and children in particular. Why take risks with the health of our children? What gross misconduct and negligence that is. The Government and all telecommunications companies should be following a policy of least regret. Site these masts well away from people, and bring down the power level at which they operate. The risk that is being taken with the health of every child and adult near these masts amounts to an infringement of their constitutional rights. The Government, unless it wants to stand thus accused should immediately apply an amnesty to telecommunications companies to release them from the penalties they will incur if their networks are not in place on time, as long as those companies are thereafter legally bound to reassess their safety standards through an independent body and reappraise their site location specifications.

Contact: Lorely Forrester 096 49181/096 49020

Continued Litigation in Butler, Pennsylvania

by Kathy Hawk (interviewed Dec. 15)

This is a continuation of the very first public utility case involving a cellular phone tower that was ever tried in the United States. It set a precedent for the United States as to whether or not a cellular tower is a public utility installation if it isn't regulated by a Public Utilities Commission. First heard at the zoning board level on July 25, 1990, it was an application to the Zoning Board by Bell Atlantic Mobile Systems, Inc., to put a tower in a wealthy, single family residential district in a town of 24,000 people.

The Zoning Board eventually approved the tower, and the Commonwealth Court found that in this case it could be a public utility for the purpose of the zoning ordinance, because it fit into a 1970 definition of public utilities. The case is called *Hawk vs. Zoning Hearing Board of Butler Township,* 618 A.2d 1087, Pennsylvania Commonwealth Court (1992). The Pennsylvania Supreme Court has refused to hear the case.

Between the time that the tower was approved, and the time it was constructed, there were 12 appeals to the Court on various issues filed by Bell Atlantic, myself, and Butler Township. In 1990, the approval had been granted contingent upon eleven conditions, one of which limited the radiation to 2700 Watts of effective radiated power (ERP). Another limited who could use the tower, and another limited the number of antennas to 25. Back in 1990, this was a very generous grant, since Bell Atlantic was only asking for 1190 Watts at that time. But now they have come back under the Telecommunications Act, claiming that the regulations don't apply any more, particularly the ones limiting who can use it, how many antennas, and effective radiated power.

In August of this year, the zoning board held a hearing on Bell Atlantic's application for a special exception to have all of those restrictions lifted. The comment period was one minute per person. Now I'm a qualified expert under Pennsylvania rules of court, and they recognized that, and I was restricted. I had an engineer who is the top electrical engineer of Armco Steel Corp. in Butler, who had put together scale models of the tower, and the houses, and the schools, and they restricted him to one minute. And they allowed the Bell Atlantic real estate manager to testify extensively on antennas even though he finally admitted he knew nothing about antennas. So Bell Atlantic was given the approval, and I immediately filed an appeal in the Court of Common Pleas of Butler County.

I alleged reckless endangerment, electronic trespass, environmental hazards of radiofrequency emissions, violations of FCC guidelines, Federal Aviation Administration violations, Constitutional issues, and the taking of property without just compensation.

Bell Atlantic *also* appealed, because the Zoning Board applied a few new conditions, for example, they were not allowed to put any dish antennas on the tower, only whip or reflector antennas. Their appeal was filed in U.S. District Court, and they are also asking for my appeal to be transferred to the District Court as well. No hearing date has yet been set for the two cases.

The tower is just over a quarter mile from my house. It was approved in 1990 before a 2000 foot setback was passed, even though it wasn't constructed and put into operation until February 13, 1995.

Satellite Update

Global cellular service—and global microwave rain—is drawing perilously close. In the October 1997 issue of *Iridium Today,* Motorola boasted that nearly half of its Iridium fleet of 72 low-orbit satellites was already in orbit. Satellite production is now an assembly-line affair. "We're close to our goal of completing a spacecraft every five days," said a Motorola spokesman.

Emergency Housing Needs

All of these people are willing to relocate.

Hope Biastre, South Carolina 803-766-0843, P.O. Box 2116, Mt. Pleasant, SC 29465. Hope is being *evicted* from her apartment on December 31 because she complained about the fluorescent lights in the hallway.

Raula Newman, Brooklyn 718-438-5782

Lisa Dehner, General Delivery, Mill Valley, CA 94942

Lisa Schneider, Brooklyn 718-768-3506

Announcements

Donations to the Cellular Phone Taskforce are needed to help with legal costs in the Appellate Court.

Membership in the Cellular Phone Taskforce includes subscribers to this newsletter and anyone who attends meetings, participates in Taskforce activities (petitioning, outreach, publicity, etc.) or expresses a desire to be a member. There is no membership fee.

Meetings take place the first Tuesday of every month at the Wetlands Preserve, 161 Hudson Street, at 7 p.m.

Arthur Firstenberg
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